

Cryptography

Past, Present and Future

Imad Fakhri Taha Al Shaikhli

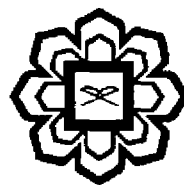


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Cryptography: Past, Present and Future

Imad Fakhri Taha Al Shaikhli



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ABSTRACT

In this article we will talk about the history of polyalphabetic substitution cipher and how the people were encrypt the plaintext and decrypt the cipher text using that cipher. Also we will introduce into Vigenere Cipher and Autokey Cipher.

BACKGROUND

A polyalphabetic substitution cipher is any cipher based on substitution. It is used to harden the monoalphabetic substitution where it uses more than one alphabet and does switching between the alphabets systematically (Cornell, 2004). With this method, frequency analysis will no longer work the same way as the previous method. The Alberti cipher by Leon Battista Alberti around 1467 was believed to be the first polyalphabetic cipher. Alberti used a mixed alphabet to encrypt a message, but whenever he wanted to he would switch to a different alphabet, indicating that he had done so by including an uppercase letter or a number in the cryptogram. For this encipherment Alberti used a decoder device, his cipher disk, which implemented a polyalphabetic substitution with mixed alphabets. Although Alberti is usually considered the father of polyalphabetic cipher, it has been claimed that polyalphabetic ciphers